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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,371	10/20/2003	Pengfei Ma	02-560	2853
719	7590	05/04/2006	EXAMINER	
CATERPILLAR INC. 100 N.E. ADAMS STREET PATENT DEPT. PEORIA, IL 616296490				LOPEZ, FRANK D
ART UNIT		PAPER NUMBER		
		3745		

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/689,371	MA ET AL.	
	Examiner	Art Unit	
	F. Daniel Lopez	3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 13 February 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 10-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 10-17 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/20/03.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

Response to Amendment

Applicant's arguments filed February 13, 2006, have been fully considered but they are not deemed to be persuasive.

Applicant's arguments with respect to claims 10-17 have been considered but are deemed to be moot in view of the new grounds of rejection. The new grounds of rejection are necessitated by the added limitations that the flow-compensation device positioned downstream of the directional flow device.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 10-17 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for maintaining a generally constant angular swing velocity, does not reasonably provide enablement for "adjusting the source of variable pressurized fluid to maintain a generally constant angular swing velocity" (claim 10 line 11-12, emphasis added). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Paragraph 22 and 23 describe how the flow-compensation device are adjusted, when the pressure changes, to keep the velocity of the actuator constant. The angular swing velocity is not kept constant by adjusting the source of variable pressurized fluid, rather it is kept constant by the flow-compensation device.

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Claims 10-17 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 10 line 6-7 "said flow-compensation device positioned downstream of said directional flow device along said direction of flow, and said directional flow device including a directional flow member" is misleading. The directional flow device (208) is a valve with a connecting portion, which connects the pump to the flow-compensation device (210), and a directional flow member, which connects the flow-compensation device with the actuator (116). The flow-compensation device is downstream of the connecting portion, but upstream of the directional flow member. Since the only part of the directional flow device claimed is the directional flow member, and since the flow-compensation device is upstream of the directional flow member, the limitation is misleading.

Claims not specifically mentioned are indefinite, since they depend from one of the above claims.

Claim Rejections - 35 USC § 103

Claims 10-17, inasmuch as they are definite, are rejected under 35 U.S.C. § 103 as being unpatentable over Kajita et al in view of Wilke. Kajita et al discloses a method of controlling fluid flow for a backhoe (fig 7) having a hydraulic system including a motor (23) of a swing system connected to a source of variable pressurized fluid (22), by a flow compensation device (35) coupled upstream of a directional flow device (29), comprising activating the swing system, adjusting the source of variable pressurized fluid and controlling the fluid flow using the flow-compensation device; but does not disclose that the flow-compensation device is "downstream" of the directional flow device.

Wilke teaches, for a hydraulic system including a motor (20) connected to a source of variable pressurized fluid (18), by a flow compensation device (64) coupled to a directional flow device (42); that the flow-compensation device is "downstream" of the directional flow device.

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Since the placement of the flow-compensation device of Kajita et al and Wilke are functionally equivalent in the hydraulic system art; it would have been obvious at the time the invention was made to one having ordinary skill in the art to locate the flow-compensation device "downstream" of the directional flow device of Kajita et al, as taught by Wilke, as a matter of engineering expediency.

Claims 10-17, inasmuch as they are definite, are rejected under 35 U.S.C. § 103 as being unpatentable over Arai et al in view of Wilke. Arai et al discloses a method of controlling fluid flow for an excavator (column 1 line 5-6) having a hydraulic system including a motor (3) of a swing system connected to a source of variable pressurized fluid (5), by a flow compensation device (10) coupled upstream of a directional flow device (8), comprising activating the swing system, adjusting the source of variable pressurized fluid and controlling the fluid flow using the flow-compensation device; but does not disclose that the flow-compensation device is "downstream" of the directional flow device.

Wilke teaches, for a hydraulic system including a motor (20) connected to a source of variable pressurized fluid (18), by a flow compensation device (64) coupled to a directional flow device (42); that the flow-compensation device is "downstream" of the directional flow device.

Since the placement of the flow-compensation device of Arai et al and Wilke are functionally equivalent in the hydraulic system art; it would have been obvious at the time the invention was made to one having ordinary skill in the art to locate the flow-compensation device "downstream" of the directional flow device of Arai et al, as taught by Wilke, as a matter of engineering expediency.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is 571-272-4821. The examiner can normally be reached on Monday-Thursday from 6:15 AM -3:45 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on 571-272-4820. The fax number for this group is 571-273-8300. Any inquiry of a general nature should be directed to the Help Desk, whose telephone number is 1-800-PTO-9199.



F. Daniel Lopez
Primary Examiner
Art Unit 3745
April 27, 2006